

ABSTRACT

Instead of mounting an existing canopy to a truck bed using clamps, this new invention involves the securing of one side of an existing vehicle canopy, with hinges to the upper side of a truck bed, be it a continuous hinge or a series of hinges. This would allow the canopy to lift from a closed or horizontal position to an open or vertical position, and close in the same way. There are a variety of methods in which to lift a hinged canopy to an upright position. The simplest way would be to lift it by hand (if you had a light weight canopy). The most practical and inexpensive way to do this is by a mechanical lift arm powered by a 12VDC linear actuator, which is the basis of this patent application. Power packs that could be used for this purpose are pneumatic and hydraulic, or in combination of the same.

In consideration of the structural integrity of most canopies, the ideal position for placement of a mechanical lift arm and power pack is on top of the inside fender well where the canopy or is best balanced.